June-July 1970

EMO

A Decade of Challenge Ahead

Canadian Emergency Planning

Seminar for Emergency Planners
— USSR Foreign Policy
— China Foreign Policy

Disaster at Sea

The Blast Shelter Question

CANADA EMERGENCY MEASURES ORGANIZATION

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A DECADE OF CHALLENGE AHEAD

by

C. R. Patterson,

National Coordinator

Civil Emergency Measures, Ottawa

The following address was presented to the National Association of State Civil Defense Directors at their 1970 Spring Conference in Washington, D.C. Mr. Patterson was guest speaker at the conference banquet April 8, 1970.

We have arrived in the '70's—where do we go from here? The former Prime Minister of Canada, the Right Honourable Lester B. Pearson, tells the story about the tourist who was lost in an Irish bog. He inquired of a passing farmer concerning the way to Dublin. The farmer's response was: "Well, if I were going to Dublin I'd never start from here". Mr. Pearson then said—"but here we are, and today is always our starting point".

It has been said that perhaps the most important happening of the last decade was man's reprieve from the impact of nuclear conflict between the two major nuclear powers. For those of you who have not done so, I would recommend that you read Robert Kennedy's "13 Days —A Memoir of the Cuban Missile Crisis", which is a thought provoking recital of the circumstances surrounding that reprieve.

In a recent article from the London Times Service I read an opinion to the effect that the major problem facing the '70's is the prevention of nuclear war; that this, indeed, is the supreme need.

In talking of the challenges to mankind in the 1970's, the attainment of a continuing peace is certainly one of the greatest of these challenges, and I have no doubt that everyone in this audience will take every possible personal opportunity to strike a legitimate blow for peace—while, by virtue of our responsibility, preparing for the possibility of a war emergency.

In talking of the challenge of the '70's to the civil emergency planner, I am really talking basically of the challenge of the environment to the manager for the welfare of the individual in an emergency. This environment has two main aspects, the physical and the psychological.

In today's physical environment we are faced by an almost continuous change in the complex relationship between the nuclear threat and the response to that threat. The threat itself exists in relation to armament and their attendant weapons carriers, such as aircraft, submarines, and intercontinental ballistic missiles and is modified by the defence response to these weapons and their delivery systems.

In the 1970's it is a foregone conclusion that our population will not only grow significantly, but will become more and more urbanized as it swells. To give you some small measure of the changes that population movement brings about, I might refer to the educational problems in our own Western Prairies where a few years ago large consolidated schools were being built for the education of the children of rural and small town familites. Today, in some of the cereal-growing areas where large mechanized farms are becoming the general rule, the farm families are moving to the cities, small hamlets are shrinking still further, the consolidated schools are practically empty, and the old one-room schoolhouse may be again a possible response to the training of the children of those limited numbers who continue to live in these rural areas.

We talk about tremendous leaps in mass communication, but individual communication capacities are growing equally dramatically. Today experimental activity is taking place with wave guides that promise to carry 250,000 messages simultaneously. With this extended communication capacity the population of the future will carry on its personal conversations and its business transactions more freely and economically than ever before, and a virtually continuous massive movement of information from one centre to another will be affected by government, business and industry.

It has become almost a truism that technological progress beyond our present comprehension will probably take place within the next 10 years, and that by 1980 will be filling jobs yet unheard of to be performed in systems not yet visualized.

The tools with which we will operate will become increasingly complex and, in many cases, increasingly vulnerable, thus compounding our problems as emergency planners.

In the midst of this, nor only will new transportation systems, building and industrial complexes proliferate, but total new communities will develop with new technologies in their systems of providing power, water, waste disposal, fire and police services, and so on, practically ad infinitum.

The environment in which we work, however, is not composed entirely of things physical, but also of attitudes and reactions. You and I have become accustomed to developing plans and preparations, operational and physical arrangements, in connection with

a war scenario. The population at large, however, while it is made aware daily of problems of national and world unrest, works under the quite legitimate assumption that, under existing technological and political circumstances, the possibility of a nuclear attack on North America is quite remote.

The excitement and demands of our rapidly changing environment tend to place preparations to meet this possible threat at a relatively low priority, both with respect to the day-to-day public awareness of the problem and with respect to public expenditures. There is nothing new about this attitude and, during periods of peace in the past, there has always been a reluctance to make major expenditures for massive response to war when such did not appear to be an immediate likelihood. It does, however, make it more difficult for us to develop, maintain, modify, and increasingly sophisticate, our response to the threat.

Last week I attended a lecture given by the Chief Curator of the National Gallery of Canada, entitled "Wider Horizons", in which he pointed out that, whereas several years ago it was generally felt that art was approaching horizons beyond which it could no longer reach, it is now apparent that the number of combinations that can be developed by the human mind in the field of art is infinite. With respect to the nature of these inventions, however, he quoted a Greek philosopher who said: "Don't worry about what is going to happen—you'll find out when it comes".

As in the field of modern art, the number of combinations with which we as managers in civil defence have to cope appears to be infinite. We are not, however, in the fortunate position of the art historian who does not have to worry about what is going to happen but can wait for it to do so; we as planners have the prognosticate the desirable responses in the future to whatever threat of war emergency may be evolving at any point of time.

What does all this mean to the manager? Of primary significance is the necessity of avoiding management shortsightedness. We as managers at our level are not hired primarily to make decisions with respect to the passing problems on our desks each day, but for the effectiveness with which we can concentrate on the problems and activities of the future. Unless we maintain a capacity for managing for the future, our programs will ultimately roll to a virtual halt.

If we are going to plan effectively for the future, we must not be confused by the "facts"—a noun which I place in quotation marks because of the questionability of its validity in common usage. Many "facts" placed before us are not facts at all, but, rather, ill-informed personal observations, or, alternatively, "facts" which have little relationship to the job in question. It is our responsibility to determine if observations made are facts, if they are relevant, and if we understand them—only when we have achieved this appreciation are we in a position to plan a response.

I cannot speak for civil defence in the United States, but certainly, in Canada, much of civil emergency planning has grown like Topsy and, as a result, is in constant need of re-examination. It is essential that from time to time we stop to ensure that the objectives we are pursuing are still legitimate objectives; that the program we are carrying out is designed to meet these objectives; and that activities, plans and concepts of operations developed with respect thereto are completely clear in our own minds. Otherwise, these can never be clear in the minds of nor, indeed, credible to those from whom we expect support in planning for emergency or operating in time of emergency.

Looking back over the-past 10 years it is not hard to appreciate that one of the things we must be ready to do in the '70's is to accommodate ourselves to new organizational shapes, because new shapes there will be both in the public and private field. Failure to modify our approach could leave us impotent to serve either government or the private sector effectively.

One of our most important activities as managers in the field of civil defence is our constant infiltration of the public and private structure. If you think infiltration is an improper word let me explain by saying that no opportunity exists unless a person actively places himself in juxtaposition with, and takes advantage of, that opportunity. There are many people ready to listen to the message of civil defence requirements and who are prepared to lend their support, their time and their facilities if they are made aware of the validity of their personal contribution and that of their organization. It is our responsibility to ensure that these opportunities are made. Someone else will make full use of the time and energy that we might have unless we personally, make and pursue an opportunity with respect to our own programs. Other interests and other people with their programs can unwittingly or, indeed, wittingly neutralize our drive, soak up our funds and make the credibility of our programs less clear to those who should be fully aware of our purpose and our approach.

To make my next statement in the United States of America is probably a case of proselytizing the converted. It is naturally the hope of every normal human being that he will not become involved in a nuclear exchange. While we are preparing for the possibility of war we are meanwhile hoping fervently for a lasting peace. At the same time we proclaim to all and sundry that we have developed plans and arrangements for dealing with emergencies. To make this claim credible we should aim ultimately to be accepted in the day-to-day role of disaster response coordinators. We must ensure that civil defence planning is integrated into the day-to-day operations of government at all levels, and that full advantage is taken for the benefit of the public of the capacity thus developed to respond to peacetime emergencies.

I have talked of the challenge of the environment to the manager and what it means to the manager, but let us never forget why we have a program at all. North America without people would be a voiceless wilderness

(*Continued on page 22*) **A DECADE**

CANADIAN EMERGENCY PLANNING

Address to The Association of Civil Defence Officers

Scarborough, England June 27, 1970

by

John F. Wallace
Director General
National Survival & Recovery Program
Canada Emergency Measures Organization
Department of National Defence
Ottawa, Canada

My purpose this morning is to tell you something of what we are doing in Canada, some of our accomplishments and, as well of some of the problems we are encountering and directions in which our efforts are taking us.

Scope of Planning

Our civil emergency preparations in Canada are intended to cover the whole spectrum of civil, or non-military, defence measures for a war emergency. Within my organization (the Canada Emergency Measures Organization), are to be found the organizational elements required to give effect to planning and co-ordinating all the component parts of our program in Canada. In a general way, my personal responsibility covers the implementation of plans.

The agencies responsible for various aspects of civil emergency measures in Canada range from departments of the Federal (or national or central) Government, which have been assigned specific wartime responsibilities, through our provincial and territorial governments. The responsibilities then fan out to about 400 local emergency measures authorities who plan and co-ordinate the requirements for approximately 4000 city, town and county government authorities in Canada. It has been suggested that approximately 95 per cent of our total population is covered by civil emergency plans for war. When I say 'covered', I would not wish to leave the impression that the effectiveness of these arrangements is uniform or that, indeed, in all cases they are truly effective.

About three years ago, the Government directed that the total Canadian program should be completely reassessed. To some extent, this was good because in many ways our purposes and objectives had been misplaced. And, although in the short run we felt significant losses in the way of funds and personnel, in the long run (if there is such a thing), our program has been more coherently defined. I would not pretend that our total national operational capability has improved—it has not. Nevertheless, with our current mandate for emergency planning, and relying to a great extent on the strategy of graduated response, we feel we can accomplish a great deal toward meeting the challenge or threat of nuclear war. The basic problem here is the possibility that this strategy will be interpreted as meaning the justification for deferring the implementation of basic measures which would need to be in existence at the precise moment a crisis arises. This would be catastrophic.

At the present time, our civil emergency plans and preparations are directed toward meeting the threat of nuclear attack on the North American continent. We are the first to admit that, at this time, the actual risk of nuclear war is remote. But we also know that in the order of probabilities, we cannot say that it is Zero (0), nor can we say that it is One (1). Having ruled out the extremes, we proceed on the assumption that such a war is possible, and that measures should be planned and, wherever possible, implemented, to counter the effects of such a war. From this assumption, we have developed our national objective for civil emergency planning:

> "To develop in peacetime, civil plans and preparations designed to enable the nation to survive and recover from any war emergency and which, together with military defence measures, represent the total national defence posture of Canada".

A plausible 1970 attack situation, prepared for us by our Defence Research Board, indicates that in a general nuclear war, without any survival measures being taken by the public, over 8,500,000 would be killed, and 1,500,000 injured. As devastating as these casualties are, over 54 per cent of our population would survive. Here, therefore, we have essentially a two-fold challenge—how can we increase our survivors—how can we ensure that the 12,000,000 Canadians who do survive the initial onslaught of an attack, will continue to survive?

National Aims

This challenge may be recognized in what we refer to as our national aims, which can be stated as follows:

1. to protect and preserve life and property, viz., to take measures which will assist the population to survive the hazards arising out of disaster;
2. to maintain a structure of government, viz., to ensure that all aspects of government, business and industry can continue to provide leadership and direct their essential services for national and international commitments;
3. to preserve our surviving resources by creating control systems and organizations which will effectively manage them.

The Structure of the National Program

These aims have been translated, in the words of today's management doctrine, into a total of seven sub-programs and these, in turn, into approximately 41 activities. Annual, five-year and ultimate goals have been or are being developed. As well, appropriate measurement units for each activity are being developed to enable us, in the future, to measure not only progress, but the overall effectiveness or capability of our total program. Without going into all the details of our program, I would like to make some brief comments about the major components of it. I think it will give you a fair indication of what we are doing in Canada. I am also attaching to each copy of my paper, some brief notes on each of the activities.

I would like to observe at this point, that the most significant advances in our preparations were made before 1967, and, to a large extent, the visible advances subsequent to that date have been minimal. My understanding of your United Kingdom term of 'care and maintenance' covers our situation admirably.

The first major sub-program is PUBLIC PROTECTION. This is defined as those measures, plans and preparations which, if implemented by the public on direction from the government, would result in a substantial saving of lives which would otherwise be lost.

The second sub-program is PUBLIC INFORMATION, and comprises the plans and preparations made for conveying to the public in peacetime, the necessary information and guidance on emergency measures; and developing a capability for providing information and instructions, as well as warning, during an emergency.

The next sub-program is referred to as ESSENTIAL SOCIETAL SERVICES. It covers the continued operation of health, welfare and educational services, as well as the provision of mass care facilities for the injured and displaced persons.

The fourth sub-program is known as CONTINUITY OF GOVERNMENT. Its purpose is to preserve political leadership, our structure of government, so as to ensure that government (national, provincial and local), will have the capability to operate in an emergency by exercising effective control and direction of its essential services.

The next sub-program is that related to our ESSENTIAL UTILITIES AND SERVICES, or more precisely, fire; rescue, water, sewerage, electrical and gas services; bridges, roads, ports and harbours.

The sixth sub-program, and the largest from the point of view of elements within it, is called ECONOMIC PLANNING AND RESOURCE CONTROL. The purpose of this program is to develop and maintain plans and preparations which will ensure a state of readiness for the effective management of resources.

The last grouping of activities, is what we refer to as SERVICE ACTIVITIES. The need for the elements contained within it, are usually created by the needs of other sub-programs, e.g., transportation (air, rail, road, water); telecommunications; postal services; law and order.

I will now go into more detail about some of the activities which are contained within some of the sub-programs, especially those in which I know you have had considerable experience.

Dispersal

This particular activity is related to the development of pre-attack plans for the evacuation and reception of people living in major centres. There are naturally a great many 'ifs and buts' about this measure and I believe I have heard every argument, both pro and con, over the years. However, it is my firm belief that we would not be doing our task if we did not have available for consideration by government during a period of increasing international tension, an option (or contingency plan), which, if implemented, could save untold millions of lives in major urban areas. The risks to which an evacuated population would be exposed, are considerably less than those to which they would be exposed if they were forced by circumstances to remain in these likely targets. It is interesting to note that this particular tactic receives considerable attention from Soviet civil defence planners.

Shelter (*against Fallout*)

Based mainly on early research carried out in the 1950's, by the civil Defence Department of the Home Office, we in Canada pioneered the work involved in conducting large scale fallout protection surveys. Although our main national survey did not get under way until 1965, from 1960 to 1965 we carried out a number of smaller surveys which he ped us in training staff and ironing out wrinkles in precedures. I should not forget here, the contribution made by our colleagues in the United States who, during that same period, moved from survey activity into the field of actual development of community shelter plans. Without doubt, their program, from the point of view of protection of the population, puts them a good deal ahead of most NATO nations.

Now that out national survey has been completed, we are in a position to start work which could result in the development of community shelter plans. The potential fallout protection we have found in existing large buildings is tremendously encouraging for a country with a population of about 21,000,000. Here are some statistics about this survey which may be of interest:

a. 2½ years to complete—updating continues;
b. cost $2,038,000;
c. data processing by computer $215,000 (11% of total cost);
d. 70,000 buildings surveyed;
e. 53 million potential shelter spaces uncovered in existing buildings (at a cost of $30 per building surveyed or .04¢ for each space found);
f. 15 million had a PF greater than 100,
6 million had a PF greater than 50 (less than 100),
15 million had a PF greater than 20 (less than 50),
17 million had a PF greater than 10 (less than 20);
g. 72% of all spaces were found in likely targets and 28% (or 15 million) in areas outside;
h. approximately 4 million spaces with a PF greater than 100 are located in non-target areas.

Shelters (*against Blast*)

Although our priority in the shelter field is toward fallout protection, we have not neglected the problem of attempting to develop protection against the primary effects of nuclear detonations. Indeed, next month we will be concluding our work on an underground family fiberglass shelter which has withstood overpressures in the vicinity of 100 p.s.i. But the work in which we have a real interest, is in the area of how we can determine, or improve, the protective features and strengths of existing structures, and what might be done to improve the strength of such structures in the construction phase. We feel that with some relatively inexpensive improvements, we should be able to provide protection in the vicinity of 15 p.s.i. We, in Canada, refer to this as protection oriented design—in the United States, they call it slanting. Success in this particular endeavour will go a long way toward meeting the objective of reducing the numbers of casualties from primary effects. Our major problem is that resources available for this work are small, consequently progress will be slow.

Nuclear Defence (Radiological Defence)

It is our intention to have a capability to detect radiation hazards developed in every community in Canada. To this end we have, in conjunction with our provinces, purchased:

12,000 (80% of requirement)high range survey meters,
12,000 (40% of requirement) low range meters,
50,000 (100% of requirement) dosimeters.

So far as we can determine, we have a need for 10,000 monitoring posts, of which 15 per cent have been established.

These equipment requirements do not take into consideration the need for similar equipment for our essential community services which may be required to operate in fallout areas. We hope that until this problem is resolved, contingency plans will be developed to move equipment from fallout free zones.

Public Information

In this particular area, we have achieved a great deal. From our earliest days, we have recognized the tremendous importance of programs related to the public. Having said that, I would have to say that, at this time, public interest in our federal program is at a low ebb. And purposely, we are not doing anything to increase that interest. However, we are in a position to respond to public demand if required to do so, in a rather positive way. Here are some of the things we have done:

a. Stocked substantial quantities of public information literature in various locations throughout the country;
b. made arrangements with a major news wire service to reproduce our major publications for the daily newspapers during a crisis;
c. pretaped and prepositioned emergency broadcast instructions for use should an attack take place with little warning;
d. prepared special informational material for use during emergencies;
e. developed an emergency broadcasting plan which has a capability for tying together all radio and television stations (key transmitters have protected facilities) in Canada;
f. developed a national survival attack warning system which is tied into the emergency broadcasting system.

Emergency planners in Canada recognize the absolute importance of preparing the public to meet emergency situations. Properly prepared information and instructions will enable families and individuals to contribute to their own protection, as well as make them more self-reliant during the post-disaster emergency. We are now engaged in reviewing and updating existing material, as well as encouraging other agencies of government to study ways and means whereby the public can contribute to the fulfilment of agency or department plans.

Continued Operation of Government in War

This area of emergency preparations, over the years, has received substantial support. Protected facilities have been prepared for elements of the central government and these are operational. Similar accommodation has been provided for six of the ten regions, while

protected interim accommodation has been made available for two regions. Plans are being developed to provide interim accommodation for the remaining two regions. Within the provinces (or regions), there are approximately 120 municipal emergency government headquarters, of varying degrees of capability in terms of protection and operational plans.

All headquarters are tied together by networks of communication facilities—landline and radio. Most of our private and provincially owned communications companies have comprehensive emergency plans, as well as protected accommodation from which to operate.

Within the federal government, each department with assigned emergency responsibilities, has developed what we refer to as Readiness Plans, emergency orders and regulations, essential records, programs and War Books.

Resource Control

As I noted earlier, one of our aims is to manage our surviving resources. To a great extent, the major responsibility for action in this broad area falls on the shoulders of federal departments and they are required to create the mechanisms or organizations needed to control and manage these resources. One department is responsible for planning the creation of a War Supplies Agency, to control production and distribution of essential supplies; another is responsible for development of an Emergency Manpower Authority; yet another for the control of engineering and construction resources; and others are responsible for fisheries, agricultural production, finance, housing and accommodation.

Most of the activity in this area is directed toward operations in the time frame of the post-attack period. Unfortunately I do not think sufficient perspective thinking has gone into the problems which will arise during this period. Those who focus their attention solely on casualties and damage, can usually come up with a 'scenario' of post-attack recovery. But if one also looks at the possibilities of social disorder, lack of government control, lack of will, then an entirely different post-attack situation evolves. I think we have a pretty fair idea of what needs to be done to reduce casualties but, in the face of catastrophic and unprecedented damage, not many of us have any experience to fall back on and it is for this reason that we need some perspective thinkers to guide us.

Risk Oriented Planning

We say in Canada, that our civil emergency planning is risk oriented. By this we mean that we try to calculate what the enemy would attack, the type of weapons he would use and the fallout situation which might be created. In programming our work from year to year, we attempt to suggest the direction, indeed the type of preparations which should be developed, in each of the four general classes of areas, viz., areas likely to be targets, high risk, medium risk and low risk fallout areas. Although a very sound case can be made for each area to plan for the full spectrum of likely events, we have been forced, because of limited funds and resources, to concentrate more of our efforts in those sectors of emergency planning where we expect to receive the most returns in terms of progress, lives saved, increased capability and effectiveness. In this regard, we are now producing a national list which indicates our estimate of the priority which should be given to the various activities that make up the program.

Measure Progress

One of the persistent problems we have had over the years, was to try to measure our progress. In general terms, we could always say we progressed but what, in fact, did we mean in terms of the capacity of the nation to survive and, in terms of dollars invested in the program? The plausible attack to which I referred earlier, provides us with a base on which we can measure progress. By studying the results of such an attack, we are able to assess all the possible effects on the country, ranging from casualties to the effects on various sectors of the economy. With the analysis system now being developed, we hope to be able, whenever we make advances in some segment of our program, to calculate the beneficial effects in terms of lives saved, or the capacity to be able to operate effectively.

Peacetime Disaster Planning

Peacetime disaster planning is engaging our attention to a greater degree than every before—not that the subject had not been recognized but, until 1965, our organization was never able to plan officially even though, by many devices, we were able to encourage and even assist the provinces and local authorities. It is notable that in 1950, I recall our late General Worthington telling Sir John Hodsoll and General Tubby Lethbridge how important it was that civil defence should become involved in dealing with peacetime disasters. Surprisingly, your country did become involved in this work, very actively as I recall, and General Worthington, who was doing the promoting, was never able to get our government to authorize active federal participation. In any case, we are now actively involved in most major disasters which occur, and we feel that the pre-disaster planning which has taken place, has enabled the government to react positively when they happen and, in many cases, has helped to alleviate conditions arising out of them. Since 1966, our organization has been actively engaged, with our Department of Finance and the provinces, in working out equitable cost sharing arrangements and procedures.

Size of Local EMO's

There is a mistaken impression in our country which sees the local Emergency Measures Organizations as

sizeable bodies of disaster trained volunteers (and to hear some comments, full time paid 'armies'). Nothing could be further from the truth! Apart from some local authority areas which do not have the usual complement of full time municipal services, and therefore rely on volunteers, the majority of the individual Emergency Measures Organizations consists of a Co-ordinator and his secretary. This local Co-ordinator's main task is to make the heads of municipal departments disaster conscious, and to co-ordinate the planning of all municipal departments, thus permitting the municipality to respond to disasters more effectively. It has never been our intention to supplant the existing municipal forces by corps of volunteers. However, in times of increasing tension, plans must be implemented to train volunteers to work with regular municipal services which would be absolutely overhelmed by the magnitude of the tasks facing them.

One of the real problems we have in Canada is that the resources provided to local organizations to develop a real operational capability, are very limited. Yet it is at this level where the people and resources are located and where, in the final analysis, the tasks of survival are to be carried out. The resources provided to them, it appears, are in inverse ratio to the responsibilities assigned.

Finance

How is our program financed? Essentially, there are two ways. First, each federal department including Canada EMO, is responsible for estimating its requirements in the usual way. However, the provincial and local programs are financed through a Financial Assistance Program, which returns to the provinces up to 75 per cent of the costs of previously approved programs. Additionally, our zone headquarters construction program, the equipment purchase program for the radiological defence system, and our Workmen's Compensation Program for Volunteers (against injury or death), are financed in a similar manner.

Currently, expenditures on civil emergency planning and preparations in Canada run at about $13,000,000 per annum. This does not leave any elbow room for expansion and, as I remarked earlier, our most significant progress was made prior to 1967. Of this $13,000,000, my organization is responsible for the expenditure of $5,000,000 and, within this amount, is expected to assist ten provincial governments and their municipal EMO's, to carry out their operations.

There is another problem which causes some of us concern these days. This is the very real question of what is an appropriate division of funds for total defence purposes, as between active military preparations and non-military defence-preparations. Some very forceful cases have been made that we must maintain a strong deterrent and I do not think I can argue against this. I am afraid, however, that like the Maginot Line, too much faith can be placed in the deterrent. In fact, so much so, if the deterrent fails, then as the Maginot Line failed, so could collapse the civilian sector, if substantive plans and preparations are not made to back it up. I am not one who thinks civil defence can prevent the catastrophic events which undoubtedly would follow nuclear war, but I am convinced that lives can be saved and that the basic structure of society and the economy can be made to work, shattered though it may be.

Various studies conducted in Canada on the cost effectiveness of various defence systems, have demonstrated dramatically that at the lower levels of defence expenditures, civil emergency measures are several times more effective than active defence measures in terms of the potential saving of Canadian life.

It is not often realized that civil emergency measures are related to weapon effects and not concerned with weapon delivery systems and thus, not subject to the frequency of obsolescence. The constant nature of weapons effects therefore, affords a high confidence value to civil defence or civil emergency 'hardware'.

Russian Views

On our side of the Atlantic, we have heard a great deal of debate over the issue of ABM systems, and civil defence. We, in Canada, are vitally interested in the arguments, pro and con, of all defensive systems. But what interest me are the views of our potential enemy. Surprisingly, from what I can ascertain, he has not criticized defensive systems. Indeed, it was in London in 1967, that Premier Kosygin advanced the view that "defensive systems are not the cause of the arms race". With regard to civil defence, from what I have read, the Soviet Union puts the program on a level consistent with their view of its importance. In 1966, at the 23rd Congress, and in 1967, Brezhnev stated that civil defence must be perfected and improved. In 1968, Marshal Chuikov set out what he considered to be the mission of Soviet civil defence. It is remarkably similar to our aims. Interestingly, he has also said of nuclear war, that "the victor in such a war will be he who will be better prepared for it, including providing for the preservation of productive strength under conditions of enemy attack".

To listen to many of our academic and intellectual strategists on matters such as active defence measures, non-military defence measures, arms control, and so forth, one would think they had the ear of Soviet strategists. And, rather than looking at the deterrent in terms of weapons, it may be more realistic to look at it as a psychological entity about which we, and our adversary, may have entirely different concepts. Strangely enough, the Russians have their own views and produce their own solutions.

International

Before closing, I would just like to mention that, in the field of civil emergency planning (which for us, includes what many call civil defence), we have inter-

national relations with NATO through the various committee structures, and with our close neighbours, the United States of America.

The importance we attach to NATO is well illustrated by the fact that when we were faced with severe staff reductions a couple of years ago, we maintained our civil emergency officer on the staff of the Canadian Delegation. I might say that Canada is one of the few countries which has a professional civil emergency planner on its delegation staff. Additionally, this one man full time representation is supported by the national representatives sent periodically to attend the various planning committee meetings.

Our relations with the United States Office of Emergency Preparedness and Office of Civil Defence, have always been exceedingly close. Formally, we work together under the aegis of the Canada/U.S. Agreement on Civil Emergency Planning. Informally, we work together as neighbours should. Over the years, we have co-ordinated our planning in the passage of radiation data, public information, emergency health and welfare operations, and emergency communications, e.g., four of our regional headquarters are tied to the appropriate United States regional headquarters. Today we are engaged, with members of the U.S. Office of Emergency Preparedness, in developing compatible arrangements in the whole field of resource planning.

Canadian Emergency Measures College

I have made many comments about many elements of government engaged in our planning but there is one which, in effect, ties it all together. I refer to the Canadian Emergency Measures College. This institution, probably more than one realizes, provides the one common focal point for all participants in Canadian emergency planning. At the College, courses are conducted for personnel employed by federal, provincial and municipal governments, as well as volunteers. Conferences are conducted for Mayors of our municipalities. Seminars are conducted for federal and provincial Deputy Ministers (the equivalent of your Permanent Undersecretaries) and, of course, a wide range of planning conferences and studies for full time planners round out the program at Arnprior. We are currently training about 1400 persons per year at the College.

Conclusion

In conclusion, I would only want to say that our civil emergency measures program in Canada covers the whole range of non-military defence arrangements. Or, as my Minister has stated time and time again: "I believe that future efforts of Canada EMO, as an integral part of the defence community, will do much in continuing to help develop an effective total defence of our nation."

We recognize that at this particular point in time, the Government has chosen to direct its main effort into areas that are not defence oriented. Nevertheless, we have a mandate to plan, to train key officials, and to maintain and improve existing arrangements. Consequently, there is enough to keep us fully occupied on a task which is a vital link in our capacity to meet the challenge of nuclear war. I hope the review I have presented to you, is evidence of the importance we attach to civil emergency measures planning in Canada.

The Seven Sub-Programs And Their Activities

PROGRAM

Public Protection

ACTIVITIES

1. DISPERSAL
   Evacuation of threatened areas
   Reception arrangements
   Plans required for 17 areas

2. SHELTER
   Against primary effects—research
   Against fallout—spaces with protection identified nationally

3. NBC DEFENCE
   Against B&C—watch only Nuclear— defence against fallout hazards RADEF programs

4. INDIVIDUAL PROTECTION
   The plans made by individuals to provide protection and make them more self-reliant during an emergency

PROGRAM

Public Information

ACTIVITIES

1. INFORMATION IN PEACETIME
   Publications, films, etc., needed to educate public as to hazards and protection

2. EMERGENCY PUBLIC INFORMATION SERVICE
   A service by which the public will be provided with information and advice during an emergency

3. WARNING
   Through sirens and an emergency broadcasting service

Essential Societal Services

1. HEALTH
   Stockpiles created and being dispersed, of emergency hospitals, advanced treatment centres, casualty units

PROGRAM

Essential Societal Services (Continued)

ACTIVITIES

2. WELFARE
   Organization of emergency welfare services covering feeding, lodging, personal services, clothing and registration

3. EDUCATION
   Organization or planning of measures required to reestablish our educational systems

Continuity of Government

1. EMERGENCY GOVT. HQs (incl. Comm.)
   Central facilities—regional, zonal and local elements

2. PROCEDURES & READINESS
   Methods of operation, readiness plans, essential records, manning arrangements

3. INTERNATIONAL
   Arrangements with U.S. and NATO

4. GOVERNMENT ORGANIZATION
   How government will operate, legislation, concept of operations, NATO agencies

Essential Utilities & Services

1. FIRE
   Reduce fire vulnerability
   Plans for operations

2. RESCUE
   Organization by local authorities

3. UTILITIES
   Plans to reduce vulnerability and emergency operation plans for water and gas installations

4. ENGINEERING
   Provincial and municipal services related to roads, highways, bridges

Economic Planning & Resource Control

1. ACCOMMODATION CONTROL
   Control and use of property

2. AGRICULTURE
   Maintain food production

3. DATA DEVELOPMENT
   Economic data and analysis for planning

PROGRAM

Economic Planning, Etc. (Continued)

ACTIVITIES

4. ENERGY AND FUEL
   Control production, transmission and distributing of energy and fuels

5. ENGINEERING & CONSTRUCTION RESOURCES
   Control of resources required for construction programs

6. ESSENTIAL MATERIALS
   Management and control of all essential materials

7. FISHERIES
   Catch, land and process all fish products

8. FINANCE
   Maintenance of financial and monetary systems

9. FOOD & FEED
   Control processing and distribution

10. INDUSTRIAL PREPAREDNESS
    Plans to reduce effects

11. INDUSTRIAL PRODUCTION
    Plans to contol production

12. LABOUR RELATIONS
    Control of wages and regulate industrial relations and working conditions

13. MANPOWER
    Plans for mobilization and control of civilian manpower

14. PROCUREMENT
    Capability to procure materials and supplies

15. REGULATION OF TRADE
    Internal and External trade in respect of rationing and price control

16. WATER
    Control of use of water

Support of Service Activities

1. TELECOMMUNICATIONS
   To ensure availability to essential users

2. DAMAGE DETERMINATION
   To ascertain nature and extent of damage

3. LAW AND ORDER
   Police, courts

4. POSTAL SERVICES
   Plans for continued operation

5. TRANSPORTATION
   Air—road—rail and sea

6. PROVINCIAL MANAGEMENT & CONTROL
   Organizations required to develop and coordinate provincial programs

7. VULNERABILITY ANALYSIS
   Reduction of vulnerability of the nation.▲

SEMINAR FOR CIVIL EMERGENCY PLANNERS

Introduction

by
B. P. O'Connell
Director
National Training, Development and Exercises Branch

Each year the Canada Emergency Measures Organization holds two seminars at the Canada Emergency Measures College, Arnprior, Ontario. The first seminar this year was conducted in May and was primarily directed at updating and stimulating professional planners of the federal, provincial, territorial and selective municipal Governments in the emergency measures fields.

The program was designed to present the current instructional situation in relation to Canada and to encourage "thinking-through" some of the management and development aspects of civil emergency measures both at present and in the future. Also the seminar sought to seek an understanding of the varying perspectives of any potential threat and its implications. In pursuit of these purposes, all participants were encouraged to express freely their views on the current and future possibilities of world or localized conflict. The views expressed in the following two articles do not reflect the views of the Canada Emergency Measures Organization, nor the Department of National Defence but are the personal views of the authors only.

Soviet Foreign Policy and Canadian National Interest

by
*Richard Gregor**

Let me begin with a speculative proposition. Assuming the same policies on the part of their allies in Europe, it is reasonable to say that had Canada and the United States been committed to the preservation of the European status quo in 1914 the world could have been spared the first World War; and the same applies, of course, to 1939 and the second World War.

*ABOUT THE AUTHOR**

Professor Gregor was born in Prague, Czechoslovakia, and arrived in Canada in 1950 and is now a Canadian citizen.

He has studied at the Universities of Prague, Toronto and London, and was granted his doctorate from the London School of Economics. Prof. Gregor has taught in the University of Maryland overseas Programme for the United States Armed Forces in Europe and North Africa. He is at present Associate Professor in the Faculty of Political Economy, University of Toronto.

He is co-editor of the forthcoming "Documentary History of the Communist Party of the Soviet Union" and is currently writing a book tentatively called "National Interest and Foreign Policy".

It is to the credit of both countries that they learned from these bitter lessons of history and, after 1945, drew from them the logical conclusion which, in face of yet another danger, led to the establishment of NATO.

To put it in simple terms we recognized that it was in our national interest to commit a few thousand troops in Europe in peacetime in order to prevent war rather than to commit hundreds of thousands of troops in wartime in order to re-establish peace.

As a result the Soviet pressures in Europe were effectively checked and this in turn led some people in the West to the erroneous conclusion that Soviet foreign policy had changed. This belief appears to have been especially prominent in Canada since 1968. It is this euphoristic attitude which presents real dangers to Canada, and for that matter, to the rest of the Western world, rather than any new Soviet initiatives.

You may remember that during the 1968 election campaign not much was said about foreign policy but what was said was obviously not thought through very well. On the few occasions when the Prime Minister discussed foreign affairs at all he stated with varying degrees of emphasis that, if elected, his government would reassess Canada's commitment to NATO in the light of Western Europe's newly acquired strength and divert our resources to continental defence and foreign aid. In the meantime, continental defence was presumably shelved but we still hear polite noises about foreign aid. I shall say a few words about the second point later.

WEDNESDAY, 20 MAY, 1970

Theme—Program Management in a Changing Society

8.30 a.m. Welcome	Mr. W. E. Garber, Principal, CEMC.
8.50 a.m. Opening Remarks	Mr. B. P. O'Connell, Canada EMO.
9.00 a.m. The Manager	Mr. B. P. O'Connell
9.35 a.m. Management, Development and Training in Civil Emergency Measures	Mr. J. P. Brennan, Canada EMO.
10.15 a.m. Coffee	
10.30 a.m. The Making of a Decision	Mr. B. P. O'Connell
11.15 a.m. Adaptability to Change	Mr. J. P. Brennan
11.45 a.m. Summation	Mr. B. P. O'Connell
12.00 a.m. Lunch	
1.45 p.m. System Analysis as Applied to Civil Defence	Mr. Neal FitzSimons, Office of Civil Defense, U.S.A.

THURSDAY, 21 MAY, 1970

Theme—International Situation and Threat to Canada

9.00 a.m. Review of International Situation—A Canadian Viewpoint	Mr. James G. Harris, Dept. of External Affairs.
10.20 a.m. Coffee	
10.35 a.m. Foreign Policy—The People's Republic of China	Prof. William Saywell, University of Toronto.
12.00 a.m. Lunch	
1.45 p.m. Foreign Policy—USSR	Prof. Richard Gregor, University of Toronto.
3.00 p.m. Coffee	
3.15 p.m. Foreign Policy—USA	Mr. V. Toumanoff, U.S. Embassy, Ottawa.
4.15 p.m. Panel Discussion—Risk of War in the Next Decade	Chairman, Mr. B. P. O'Connell, Prof. William Saywell, Prof. Richard Gregor, Mr. V. Toumanoff.

FRIDAY, 22 MAY, 1970

Theme—Canada and Continental Defence

8.30 a.m. The Threat to Canada and its Implications	Mr. S. N. White, Canada EMO.
9.15 a.m. Intercontinental Defence	Dr. G. R. Lindsey, Defence Research Board.
10.45 a.m. Coffee	
11.00 a.m. The Role of the Canadian Forces	Brigadier General W. K. Lye, M.B.E. CD, Dept. of National Defence.
12.00 a.m. Lunch	
1.45 p.m. The Canada EMO Program	Mr. J. F. Wallace, Canada EMO.
2.45 p.m. Coffee	
3.00 p.m. Panel Discussion—Canada and Continental Defence	Chairman, Mr. C. R. Patterson, Canada EMO. Dr. G. R. Lindsey, Mr. J. F. Wallace, Mr. S. N. White.
4.00 p.m. Closing Remarks	Mr. C. R. Patterson, National Coordinator, Canada EMO.

SEMINAR PROGRAM

These statements sounded rather alarming during the campaign; they sounded even more alarming after the election when the Prime Minister announced that he expected his ministers to think more for themselves and rely less on the Civil Service. Now, thinking ministers in themselves are to be welcomed but one cannot escape the suspicion that the expertise of the Civil Service is being ignored to the detriment of policy.

Let us examine the government's propositions more closely. It seems to me that Western Europe, on its own and in top form, is not an adequate match for the Soviet military machine including nuclear weapons. But this really is not the crucial point. We do not want to fight and win a war, we want to prevent a war. We can accomplish that if we make it abundantly clear to a potential aggressor that he stands nothing to gain from aggression. This again is fairly obvious and does not tell the whole story. What must be emphasized time and time again is the fact that twice in this century Canadians ended up fighting in Europe in conflicts which were not at all of their own making. Since Canada did intervene in these conflicts she obviously considered the question of who controls Europe of utmost importance. It seems to me that this question remains of prime importance to Canada. Europe is simply too important to be left to the Europeans.

There is one other feature related to the European defence problem which should be clarified once and for all. The question of Canada's contribution to European defence is not a question of European defence. Defence of Europe as such, so far as Canada is concerned, is at best of secondary importance. One

would hope that no Canadian statesman in the past decided, or would decide in the future, to fight for Europe. Such decisions are made not on altruistic grounds but on those of self-interest. European conflicts have the tendency to spill over into global ones. Consequently, Canadian troops are in Europe to contribute to the overall deterrent and so assure that they would not have to fight in World War III.

It could be argued, of course, as indeed it was, that in the final analysis, it does not matter what Canada does, given the American commitment to NATO. Looked at in isolation this is undoubtedly true. But one should never look at problems that way. Admittedly, while the partial Canadian withdrawal caused some ill feelings in Europe, it did not cause a serious disruption in the alliance. On the other hand we cannot estimate the damage to the alliance which would be caused by our complete withdrawal. I do not wish to exaggerate the impact of such a step but we must remember that proposals of this kind have been recently made in the United States by prominent Americans. Given the unfortunate state of affairs in that country it is not inconceivable that we might tip the balance in favour of a similar decision in the United States.

Finally, the practical implications of Canadian policy apart, we should certainly try to follow the correct policy no matter how small its impact in reality. To do that Canadian policy in its broad outlines would have to remain for the foreseeable future much the same as in the past. So far as I know, this was the decision of the Department of External Affairs which conducted its own reassessment of foreign policy in 1967; this too was the conclusion, for NATO as a whole, of the Harmel report and several other reports submitted to the NATO Council between 1967 and 1969. These conclusions are not in the least surprising in view of the recent developments in Soviet strategy. The Soviet military budget has been increasing in the last few years. The Soviet Union has achieved superiority in intercontinental ballistic missiles; it has constructed a limited ABM system around two major Soviet cities; it has embarked on the establishment of new highly mobile forces which, according to Soviet military spokesmen, can be deployed anywhere in the world; the Mediterranean is becoming a Soviet *mare nostrum*. The traditional defensive Soviet posture became an offensive one.

It was not immediately clear what political policy prompted this change in strategy. The defensive considerations, of course, remained. Also, there is no doubt that the ever worsening conflict with China contributed to the change as did their increasing commitment in the Middle East. However, the main consideration became clear from a subsequent Soviet diplomatic offensive. The Soviets have submitted in recent years two proposals for, what they called, collective security arrangements in Europe and in Asia. While a genuine collective security arrangement is essentially a defensive measure it is probable that the Soviets have other motives in addition to their defence considerations. In Europe they desire to get the United States out and increase the dependence of Western Europe on the Soviet Union. The enormous Soviet nuclear build up is certainly part of this strategy. It is meant to encourage the Gaullist belief that because the Soviet Union has the capacity to inflict unacceptable damage on the United States the latter cannot be counted upon anymore, and is thus an invitation to the West Europeans to come to an independent agreement with the Soviets. In addition and at the same time the Soviets, in order to sweeten the bargain, are offering increased trade.

In Asia the policy excludes China and is aimed at that country's containment. In this sense the term collective security is, of course, a misnomer. Furthermore, the Soviet Asian proposal differs from the European one in that the Soviet Union does not intend to become a member of such an arrangement but rather some sort of an overseer who would support the members economically as well as with supplies of military materiel, thus again increasing their dependence on the USSR.

In the West the Soviet European proposals were received politely but without enthusiasm. In Asia the Soviet proposals met with outright hostility and rejection of the idea of "ganging up" on China, as Mrs. Gandhi put it.

While the Soviet Asian policy at least appears understandable, their policy towards Western Europe seems to suffer from contradictions. Ever since the establishment of NATO the Soviets have been trying to split that alliance and above all get the Americans out of Europe. This was why they welcomed de Gaulle's policy with open arms. The resulting and predictable closer cooperation between Washington and Bonn, which the Soviets could have easily foreseen is now attacked as the "Washington—Bonn Axis"; and demands for American withdrawal continue. It is not clear what the Soviets really envisage. They must know that, their grand design for a European security system notwithstanding, the West Germans, in the absence of U.S. guarantees, might come to the conclusion that they had no other choice but to embark on massive rearmament and quite possibly to go nuclear in spite of having signed the Nuclear Non-proliferation Treaty. The guarantees which the Soviets appear to be willing to give to West Germany, and to the rest of Europe, is signing a declaration renouncing the use of force in the settlement of disputes. At the same time while they clearly expect the United States to withdraw from Europe, they make it clear that the Brezhnev doctrine of limited sovereignty is not up for discussion.

It is obvious that the Soviets would be less than enthusiastic about the possibility of a unilateral West German rearmament. This is not to suggest that West Germany could ever be a match for the Soviet Union. But in a given situation it could precipitate a conflict with far-reaching consequences. In fact, the German unilateral rearmament alone might bring forth a Soviet military intervention. The Soviets have actually threat-

ened in the past to do precisely that on the basis of article 107 of the United Nations Charter which gives them the legal right to intervene under certain conditions in the affairs of former enemy states.

This would be, of course, the most extreme action available to the Soviets and full of dangers to them. In view of this I suspect that they have not played their last card in the current diplomatic offensive. We may yet hear Soviet offers for the neutralization of Germany with vague hints about the possibilities of reunification.

Unilateral West German rearmament would also create uneasiness, to put it mildly, in Western Europe and cause outright panic in the East European countries, notably Poland and Czechoslovakia; it would make the reliance of these countries on the Soviet Union voluntary rather than imposed something that is not in the interest of the Western world including Canada. Apart from this the European situation would become less stable.

Nothing that I have said so far meant to indicate that Canada, as a member of the Atlantic Alliance, should not be interested in a detente with the Soviet Union and the other countries of the Eastern bloc. Other members of the alliance, notably West Germany, have already taken initiatives in that direction. As the Harmel report stated "detente and defensive alliances are not mutually exclusive", and balanced forces reductions are to be strived for. The desire for balanced reductions of forces was again reiterated by subsequent NATO meetings. In fact studies are in progress on various concrete proposals on how to bring such reductions about when and if the Soviets are willing to listen. We participated at all these meetings and accepted the above policy statements. In view of this our government's decision to withdraw part of the Canadian contingent from Europe unilaterally appears to be nothing short of the extraordinary. It is obvious that the least effective way of bringing about a detente is by unilateral military withdrawals without any quid pro quo from the other side.

It is interesting to note that the government, I think quite correctly, refused to reveal its hand in connection with the negotiations on the recognition of mainland China. Yet, in the case of Europe, instead of insisting on reciprocal concessions from the Soviet Union, we acted unilaterally.

One more word of caution about the term 'detente'. The word has been adopted by the media and by commentators as meaning almost any agreement with the Soviet Union. For instance, any mutual reduction of armed forces or any other kind of partial disarmament or arms control is nowadays referred to as detente which they are not. Detente means a relaxation or cessation of strained relations between states. Partial disarmament or arms control simply mean a reduction of a potential conflict to a lower level, at least in its initial stages. Security of either side is not likely to be increased as a result. In fact, the result, because of the popular misunderstanding of the term detente, may be just the opposite. In the absence of meaningful political agree-agreements signifying a genuine detente, partial disarmament agreements tend to cause euphoria in the West, they can easily destabilize the international situation as a result, and bring us to the brink again.

One more thing has to be said. We in Canada have been always rather squeamish about NATO's reliance on nuclear weapons. Consequently the decision under President Kennedy to change the NATO strategy from the so-called "trip wire" to the graduated response was

Panel Discussion Left to right: James C. Harris; Professor Richard Gregor; B. P. O'Connell; V. Toumanoff and Professor William Saywell.

a welcomed development. Under the latter strategy the NATO planners expect to be able to meet any Soviet attack on the same level. It is hoped that the present forces could hold a conventional Soviet attack for up to six weeks during which time the Soviets might be persuaded to withdraw under the threat of a strategic nuclear response. By cutting down on our military commitment to NATO we have undermined this strategy and made a major nuclear exchange at the very beginning of hostilities more likely. Admittedly, under the circumstances the possibility of a Soviet attack is very remote indeed; but it seems to me that responsible leaders should not treat such matters lightly and should be always prepared for all contingencies.

I mentioned at the beginning a proposal to the effect that what we save by cutting our NATO commitment can be spent more profitably on foreign aid. I suspect that such saving is more illusory than real but let us assume, for the sake of argument, that we shall in fact save a substantial amount and channel it into foreign aid. We must ask ourselves what it is that we are doing? And the answer is, of course, that we are substituting a humanitarian act for policy. This is not to be taken as an attack on foreign aid of which I am in favour but simply to demonstrate the irrationality of such a course of action. It ought to be clear to anybody who has taken the trouble to investigate the question that foreign aid alone has little or nothing to do with the national interest of the donor country. If we wish to give foreign aid then we must tighten our belts a little more and spend additional funds on it. To do otherwise and channel money which should be spent on policy into a humanitarian act is not only mistaken but also irresponsible. No matter how compassionate a political leader may be his first duty is to the citizens of his country and only after their security has been adequately safeguarded can he afford to think of others.

It can be demonstrated, at least historically, that a well prepared and strong country or alliance have never been attacked. This axiom is as valid today as it was in the past. The answer to war and peace is in our hands and not in the hands of our adversaries. They are, in spite of all their shortcomings, rational people, who will not consciously unleash the scourge of nuclear war. However, they may be led to it through miscalculation—by our own mistakes.

Foreign Policy – Republic of China

by
*William G. Saywell**

China's foreign policy objectives may be somewhat arbitrarily divided into four broad categories—the preservation of her national security; the regaining of full territorial sovereignty; the international recognition of her great power status; and the assertion of ideological leadership in the Third World.

Again both arbitrarily and perhaps artificially we may suggest that Peking's perception of her national security interests fall along three main levels, minimal, secondary and ideal. The minimal requirement is simply to assure that no hostile power cross her national borders or pose an immediate military threat to Chinese territory. It was precisely this kind of threat that provoked Chinese involvement in the Korean war. It is the need to assure that precisely the same minimal requirement is met which would compel China's entry into the Vietnam war if American forces were to cross the 17th parallel.

In many ways Korea was militarily a traumatic experience for the Chinese. Nevertheless Peking remains convinced that strategically she can overcome any tactical superiority the enemy may have in arms and air power to win a land war on the Asian continent. The belief in the supremacy of the human will is not only deeply imbedded in the exceedingly important voluntarist strain in Mao Tse-tung's thought, but has also been reinforced by the lessons of the Chinese Civil War, their struggle against Japan and the war in Vietnam. As Chinese tactical power grows with an improved nuclear and missile capability, Peking may well feel safe in widening the geographical perimeter of this first zone of national security interests.

*ABOUT THE AUTHOR**

Professor William Saywell took his early schooling in British Columbia, and he received his degrees from the University of Toronto and studied at Yale University. His doctorate thesis was on early 20th Century Chinese intellectual history — his main interest being the development of modern Chinese nationalism. The thesis, is now being revised for publication.

Professor Saywell has also begun a study of Chinese Foreign Policy during the Cultural Revolution. In 1967-68 he was on leave of absence from his present position, he did research in Hong Kong on a Foreign Area Fellowship from the Ford Foundation.

Professor Saywell has written book reviews for several academic journals, and has also done a great deal of radio and television work—mostly of the editorial comment variety, or adult education and public affairs programs on modern and contemporary Asia. He has also contributed several chapters to High School textbooks on China and Asia. At present Professor Saywell is with the Department of East Asian Studies, University of Toronto.

The second zone of China's national security interests involves a number of variables related to both China's military power and the international situation. These variables make this area fluid and very difficult to assess Peking's short or long term actions to protect it.

This zone includes much of continental Asia and in particular those nations bordering on the People's Republic of China. To a lesser extent it may under certain conditions include the island states of Indonesia and Japan. In continental Asia, China's primary concern is to secure good relations with as many of these states as possible thereby eventually securing a buffer zone of friendly or nonaligned nations who will not permit foreign military bases on their soil.

Ever since the Bandung era of the mid-1950's Peking has used diplomacy, trade and foreign aid to achieve this aim. Coups in Indonesia and more recently in Cambodia have been major setbacks to Peking's objectives. The primacy of pragmatism over ideology in China's conduct of her foreign affairs is particularly clear in her relations with Asian nations. She has encouraged the best possible ties with states with whom she has little ideological affinity. Nations led by monarchs and military men—Afghanistan, Nepal, Burma, Pakistan and until recently Cambodia have been the objects of Peking's friendliest gestures and the recipients of her most generous aid. How Peking would respond to a sudden change in the balance of power within this zone is not entirely predictable for there are too many variables involved. Nevertheless her concern is critical and this is nowhere better reflected than in Peking's tirades against the expansion of both Soviet and Japanese influence throughout this area.

Peking's perception of an ideal security situation is of course unlimited and in its extreme of only academic interest. Perhaps a reasonable level of her expectations would include the hope that much of the underdeveloped world and in particular Asian nations will accept her ideological leadership thereby helping improve her security position as well as increasing her international prestige and influence. Thus Peking's aid programs particularly in Asia and Africa are, in relation to her resources, generous. Peking has also given training and limited technical, economic and military assistance to foreign revolutionary movements like the White Flag Communists of Burma, the Nagas of Northeastern India and to Communists, in both Thailand and Malaysia. Nevertheless Peking's posture in aiding these movements has been consistently low as have her activities among the Overseas Chinese of Southeast Asia generally been cautious. While China remains hopeful that one day revolutionary currents will radically transform the entire area, both ideological conviction and national security interests dictate that at least for the present she emphasize the Socialist virtue of self-reliance rather than that of fraternal assistance.

China's second major foreign policy objective is to regain full territorial sovereignty over lands which virtually all nineteenth and twentieth century Chinese leaders have considered rightfully theirs. Thus while western observers may have considered China's reassertion of control over Tibet an act of aggression, Mao like earlier Chinese leaders, considered it a domestic matter. Similarly both Taipei and Peking reject any implications of a Two-China policy. Before the outbreak of the Korean War, Washington made it eminently clear that she would not protect the rump government and forces of Chiang Kai-shek on that island. It was the conflict in Korea that led to the deployment of the American Seventh Fleet in the Taiwan Straits and the subsequent developments which have led to the dangerous deadlock in Sino-American relations. While Peking has no immediate hope of "liberating" Taiwan by force, her objective of eventually holding de facto sovereignty over the island will continue to frustrate any attempts at normalizing Sino-American relations. China's insistance in Stockholm that Canada explicitly acknowledge her sovereignty over Taiwan is in part a warning of her rigid commitment to this objective. It is no accident that Peking is taking this stance with a North American ally of the United States while earlier it was more flexible with France. It is equally as significant that this is being done at a time when Washington is making gestures of a change in its own China policy.

If Taiwan is unnegotiable, the disputed borders with both India and the Soviet Union are not. Although violence on the Sino-Indian border was motivated by a complexity of factors inciuding a Chinese quest to prove India's weakness and the "fraudulence" of her nonalignment, the basic problem did involve a complicated border dispute. Greater Indian involvement in international relations and in particular Moscow's increased influence in New Delhi will help tighten Sino-Pakistani relations and make the Sino-Indian border and the subcontinent generally a more dangerous area.

The 4,500 mile long border between China and the Soviet Union offers a much more explosive situation than the Sino-Indian frontier. Even if a legally satisfactory settlement can be negotiated, the border will remain a potentially explosive area as long as ideological, national, and international differences divide Peking and Moscow. Here the crisis area is not the rivers and islands of the Northeast where violence flared last year, but rather the Northwest. The geo-politics of the area, China's nuclear installations in Sinkiang, and her military vulernerability here make this the critical region. Much of the area is populated by national minorities whose loyalty to Peking may be tenuous and who may be susceptible to the challenges and enticements of Soviet propaganda. The largely nomadic societies of the region mean the area will remain fluid. A clearly defined political boundary not backed by the best faith on both sides is almost a contradiction in terms.

The fourth areas over which China one day may seek to reassert her full territorial sovereignty is Hong Kong. Chinese pressure on the colony and border tensions like those during the summer of 1967 will from time to time erupt. These should not however be interpreted as a prelude to overt military action designed to win control over the colony. Rather they will be the outgrowth of

internal problems particularly in Kwangtung province or national policies with immediate and limited foreign objectives. Both Peking and London realize that Hong Kong cannot be militarily defended for more than hours. If the day arrives when Peking chooses to retrieve this territory Britain will bow to her ultimatum. For the present at least China is prepared to put up with this anomalous and humiliating situation as long as British control of Hong Kong is useful to her as a major channel of foreign currency, trade and as an important local market.

I would define the third major goal of Chinese foreign policy as the quest for international recognition of China's independence and great power status. Obviously recognition of China's full territorial sovereignty is part of this objective. Beyond this however she seeks general acceptance in the international community as a great power, and Asia as the pre-eminent power. One can only understand how important this is to China if one realizes how pivotal the themes of nationalism and anti-imperialism were throughout the Chinese revolution.

Peking's present diplomatic isolation is partly self-imposed. Yet I would argue that she is rather more interested in receiving diplomatic recognition and general acceptance in the international community, than many observers have suggested. Recent comments by External Affairs Minister Sharp that Canada's future voting pattern at the United Nations on the China issue would be consistent with our diplomatic stance may well be more than the sudden articulation of the logic in that position. It may reflect Chinese demands at the Stockholm talks. Nevertheless, however interested Peking may be in having Western nations extend diplomatic recognition to her and voting for her admission to the United Nations, China's position will remain basically passive and she cannot be expected to give up her minimal terms particularly on the one-China issue.

In Peking's eyes her involvement in the Korean war and the negotiations settling both that conflict and the first Indo-China war, provided her with the 'de facto' recognition that no great problem in East Asia could be solved without her participation. China's diplomatic initiatives during the Bandung era, and her claims in the 1960's that the Soviet Union was not an Afro-Asian nation, added the diplomatic and ideological dimensions to the same stance that was achieved militarily in Korea. China's continued isolation will increase the chances of international friction erupting from her natural attempts to exert greater influence in Asia. The policies of containing China now being as actively pursued by the Soviet Union as by the United States, are not only based on the questionable (in my mind false) premise, that China is an expansionist power, but also imply the equally dangerous assumption that the natural evolution of China's influence as a great Asian power can be permanently curbed.

The fourth major area into which China's foreign policy objectives fall is that of Peking's assertion of her ideological leadership throughout the Third World. Genuine ideological differences as well as crucial conflicts of national interest have been a part of the Sino-Soviet rift. The Cultural Revolution has underlined just how important ideological concerns are to the Maoist leadership of China, and how thoroughly convinced it is that the Soviet Union is a revisionist, not revolutionary power. China's claim that she offers the best model for wars of national liberation and the only ideological leadership in the revolutionary world, particularly in the continuing context of her diplomatic isolation, means that her foreign policy statements appear militant in tone though her policies are actually very cautious.

In practical terms this objective will be pursued by both moral support and limited material assistance to those revolutionary movements Peking endorses. However material aid and in particular arms will be given only where and when there is little fear of it jeopardizing China's official relations with the established governments of these countries. Basically Peking's posture in supporting external Communist parties and revolutionary groups has been, and is likely to remain, exceedingly cautious. The message emanating from Peking to both these groups, as well as to her foreign aid recipients, is that of self-reliance. This is not only a true and tried revolutionary virtue but it is also a clear statement of the primacy of China's own national interests and a warning to her friends that the risks she will take in promoting world revolution are sharply limited.

Methods

The implication running throughout this discussion of China's foreign policy objectives is that Chinese foreign policy has been cautious and pragmatic. There is nothing in this record to justify Western or Soviet assumptions that China is an expansionist power. Even if Peking were intent upon extending her influence or borders by force, her limited military capability for such an offensive or its logistical support, and her overwhelming concern with major domestic problems clearly would limit the scale of risk she would accept. The record of Chinese foreign policy during the past two decades, as well as present internal political conditions, suggests convincingly that China will not move beyond her borders except in retaliation for overt aggression against her, or to protect immediate and vital national security interests. The People's Republic of China simply has not had its Hungary's and Czechoslovakia's; its Cuba's and Dominican Republic's.

The most common misconception underlining the popular belief that China is potentially an aggressive nation is that her population of now close to 800 million will one day force her to seek living space beyond her present borders. Aside from questioning where she might expect to find large tracts of underpopulated and fertile land in continental Asia, this theory is open to even more serious doubts.

The pressure of population is not nearly as great in China as it is in many Third World countries. In fact

China has been more successful in lowering the rate of her population growth than most other underdeveloped nations. Moreover, it is not commonly realized that China still has large areas of territory which can be, and are being opened to cultivation by both organizational techniques and technological advancements. Finally, China will inevitably benefit from the scientific solutions now being found to overcome the food crisis in what Asians are already describing as a "Green Revolution". Man now has the knowledge to conquer the food crisis. It is primarily political and cultural obstacles which are inhibiting the full impact of these extraordinary technological developments. China's population problem is likely to become a major determinant of her foreign policy considerations only if political instability within China creates an economic crisis.

A second misconception which some Western observers seem to have is that Lin Piao's famous 1965 speech, "Long Live the Victory of People's War!" was a blueprint for Chinese expansion. This is patently absurd. Lin's speech was a statement of faith; an ideological claim that the Chinese revolutionary model of a people's war for national liberation and social change, ultimately victorious in a strategy of encircling the cities from the countryside, is applicable to the entire world. It was a statement of faith in the Maoist dictum that people, not weapons win wars—that in the long run nuclear arms and Imperialism are indeed "Paper Tigers". With the analogy of the Chinese revolution as its background, Lin argued that people's wars in the countryside of the globe—i.e. Africa, Asia and Latin America—would provide more than indigenous national victories. Collectively they would in the end encircle and strangle the globe's cities—i.e. Europe and North America. Lin promised these movements China's moral support and ideological guidance. He did not offer physical leadership or material aid. Indeed it was also in 1965 that China increased her emphasis on the need for revolutionary movements and developing countries to be self-reliant.

Military Capability

China's cautious, low-risk foreign policy is consistent with her military capability. Basically China is devoid of any effective naval power and her air force is limited essentially to outdated fighter planes which have little strike capability. This reflects both the drying up of Soviet and in the early 1960's and China's opting to place most of her expenditure in the development of nuclear weapons, missiles and satellites. Her first detonation of an atomic bomb in 1964 and the recent launching of a satellite represent an impressive record for a developing country. So too does her development of a medium range missile and the probability that she will soon test her first ICBM. However it is likely to be a long time before she will have the required stockpiles to pose a serious threat to North America. Soviet fears of China's progress in these areas are obviously more understandable.

Equally as important as China's nuclear and missile capability, is her nuclear policy. Peking's position on nuclear disarmament has been consistent and of course untested. She has opposed any test ban treaty or partial disarmament on the not illogical premise, from her point of view, that such an agreement would preserve the present military balance of power and thus her own vulnerability to both military attack and "nuclear blackmail". Until 1964 she called for the complete destruction of all nuclear arms and a total ban on testing. Since her own entry into the nuclear club she has called for a "no first use clause" treaty and the complete abolition of nuclear arms. Until the unlikely day arrives when such a treaty is signed, China will continue to place a great deal more money and energy into her nuclear and missile programs than in those for improved strike capability in conventional weapons.

With an army of about 2.5 million men and an immense militia, China can mobilize by far the largest land force in the world. However since at least 1959 when Defence Minister P'eng Te-haui was ousted and replaced by Lin Piao, Peking's army policies have been consistently defensive and political. In Maoist eyes the army is viewed essentially as a defensive organization, trained, indoctrinated and equipped to fight a protracted revolutionary struggle within China's borders. An emphasis on the militia, and the low priority given professionalization, modern organizational techniques and sophisticated equipment in the People's Liberation Army particularly since 1959 bears this out. So too does its corollary Peking's emphasis on the army's politicization and its socio-economic activities. Today the PLA is as much a political entity as a military one.

The Cultural Revolution & Its Aftermath

The pre-eminent role played by the people's Liberation Army in restoring order and administering China since the height of the Cultural Revolution in 1967 has suggested to some observers that China is headed for a Napoleonic era. Those who accept this interpretation also point to the constitutional provision for Marshall Lin Piao's succession to Mao and the increased representation of military men in the Chinese Communist Party now slowly being rebuilt. Assuming the continued leadership of either the Mao-Lin group or successors who share their fundamental beliefs, there is no justification for interpreting these events as signs of the emergence of a militarily oriented or militaristic society in China.

Mao Tse-tung turned to the PLA to back up his unprecedented revolutionary struggle in 1966—1968 precisely because it offered the most politicized and revolutionary segment of Chinese society. By the summer of 1966 Mao realized that he could not effectively implement his policies through party or bureaucratic channels in which his opponents were deeply entrenched. He could however trust the army for under Lin Piao's leadership since 1959 the PLA had been diverted from its professionalization of the late 1950's to become a

thoroughly Maoist revolutionary vehicle. While Mao chose the Red Guards as his revolutionary vanguard for these struggles, the PLA was used to reassert central authority, re-establish political stability, and accelerate economic production after the worst clashes of the Cultural Revolution were over.

In a broader context the Cultural Revolution in itself revealed just how decisively Mao views internal developments as taking priority over foreign policy considerations. During the Cultural Revolution Peking recalled all but one of its ambassadors. Mao was also prepared to see the Foreign Office wracked by internal upheaval and dissolve into a state of virtual chaos in the summer of 1967. He was also prepared to see Red Guard attacks on foreigners and foreign missions in Peking seriously damage China's foreign image and her relations with both fraternal Communist parties overseas as well as friendly governments. Both Mao and presumably Lin Piao were also prepared to see China's military defence weakened by those and other events.

Thus the Cultural Revolution in so far as one wishes to relate it to foreign policy, underlines not only the pre-eminence of political over foreign or military considerations, but it also reveals a great deal about the nature of the Chinese military both then and in the Revolution's aftermath. In short, it helps support the contention that the PLA is a highly revolutionized body not an intensely professional one. As such it is trained for, and concerned with essentially domestic and defensive responsibilities not offensive action.

Future Developments

There is nothing to suggest that Peking's foreign policy will be altered significantly in the forseeable fu-

Seminar participants left to right: James C. Harris, Department of External Affairs speaker on the International Situation from a Canadian Viewpoint; B. P. O'Connell, Canada EMO, Chairman; Professor William Saywell; Professor Richard Gregor, V. Toumanoff, U.S. Embassy, Ottawa, speaker on U.S.A. Foreign Policy; and A. J. Gaumond, Canadian Emergency Measures College.

ture. Despite China's impressive achievements during the past twenty years, her domestic problems will continue to dictate that all her energies and imagination be exerted within, not beyond her borders. She will risk the destruction of these accomplishments only to preserve her territorial integrity and national security. Nor is there anything in the record of Chinese foreign policy to suggest that she will take serious foreign policy risks to divert public attention from possible domestic failures or crises. On the other hand as long as China remains a highly politicized, revolutionary society led by Mao or men who share his basic convictions, the essential pragmatism and caution of her foreign policy may often lay hidden beneath the strident, almost evangelical verbiage of her propaganda and foreign policy statements.

This thesis assumes a reasonably smooth transition in both the succession to Lin Piao and in the inevitably rapid change from Lin to his successors. It also assumes that at least the first generation of new rulers after Lin Piao will continue to pursue basically Maoist policies.

There are however tensions and divisions within China today which once the strong hand of Mao goes may emerge as forces both stronger and even more divisive than they proved to be in either 1958-59 or 1966-67. Tensions almost certainly continue to exist in the army, party and bureaucracy between what may be conveniently, but not definitively, called the Maoists or revolutionaries and the professionals. Should they erupt again with sufficient force to disrupt China's internal stability after Mao has gone, and should they converge with a major escalation of external pressure on China, it is impossible to predict what changes this might dictate in Chinese foreign policy.

Perhaps even more dangerous would be the victory within China, particularly within the military, of what might be called the orthodox modernizers or professionals over the Maoists. If men come to power, like some of those purged since 1959, who were intent upon rejecting Mao's political priorities for a greater emphasis on rapidly building a modernized highly professional military, equipped with the best possible weapons, and perhaps underpinned by a rapprochement with the Soviet Union, this would involve major foreign policy changes. This type of leader would also emphasize the rather more orthodox policies of economic modernization similar to those in the Soviet Union. Again these would probably place too heavy a priority on heavy industry at the expense of agrarian self-sufficiency. Such a radical change could lead to a renewed quest for Soviet technical and economic aid to support programs similar to those of the early 1950's. In short, a sharp swing toward what China now calls revisionist policies would not only improve the chances of restoring a viable Peking-Moscow axis, but also could create grave problems in rural China thereby upsetting the regime's stability and making its foreign policy less predictable. Ironically, the world has more cause to fear either a "revisionist" or unstable China than a Maoist or revolutionary one.

Assuming the continued leadership of Mao, Lin Piao, or men of this type China is not likely to alter radically its present foreign policy or risk a major confrontation with either the United States or the Soviet Union. At least for the immediate future the most serious dangers are in a further escalation of the war in Indo-China and increased Soviet pressure on the Sino-Soviet border. Short of a major military escalation in Indo-China the present American policy in Asia will continue to frustrate any attempts to normalize Sino-American relations, but it is not likely to provoke a showdown between the two powers.

In the somewhat longer run a dramatic shift in the balance of power in Asia is more likely to come from policy changes in Japan than in the United States. Peking is understandably concerned about the increasing military strength of Japan and the acceleration of the Japanese presence and influence throughout the region. Improved ties between Japan and almost every major Southeast Asian country including Taiwan, as well as tighter links between Moscow and Tokyo, are interpreted in Peking as a potential threat to her national security.

Japan's Self-Defence Forces are the best equipped in Asia. They number close to 200,000 men. More significant is the fact that Japan alone in Asia has the technological, industrial and economic strength and sophistication to become a military super-power within a very short period of time. Pressures within Japan are mounting for the development of a military capability consistent with its economic power, trade and foreign investments. Cutbacks in American aid to Southeast Asia and Washington's hope to decrease its military involvement in Asia imply mounting pressure from both the United States and perhaps more slowly from Southeast Asian nations on Japan to play a greater role in the collective security of the region. Informed Western observers are not only predicting that this will happen. They are saying it is happening. Having so recently struggled for their survival against Japanese aggression, Peking is suspicious of these trends. Personally I fear that in the long run this situation is far more dangerous than the present Sino-American hostility.

Yet in the more immediate future the most explosive situation is unquestionably the Sino-Soviet dispute. Indeed, during the past two or three years Peking has made it eminently clear that she considers the Soviet Union the most immediate enemy. Mao himself is reported to have explicitly told the Party this last October. The long disputed, and perhaps undefinable sections of the Sino-Soviet border provide almost limitless areas of possible conflict. Continued success in China's missile program will increase Soviet fears. One has only to visit the Soviet Union to sense the emotional intensity of their distrust, even fear of China. If there is anyone in the world today seriously afflicted by the "Yellow Peril" bogey, it is the Soviet people and perhaps their leaders.

(*Continued on page 22*) **SEMINAR**

DISASTER AT SEA

Chedabucto Bay, N.S.

by
A. F. Wigglesworth
Regional Director (Nova Scotia)
Canada Emergency Measures Organization

The "Battle of Chedabucto Bay" on Canada's East Coast is being won, against great odds, by a select group of dedicated people.

The combination of unique talents possessed by the group selected for "Operation Oil" have been moulded and directed by the firm hand of Dr. P. D. McTaggart-Cowan, Science Council of Canada, task force head. His aides are Dr. Harry Sheffer, Vice Chairman, Defence Research Board and Captain Mike Martin, Maritime Command, Canada Armed Forces.

Much has been said and written about the wreck and sinking of the tanker "Arrow", in February, 1970, the attempted salvage of the vessel, and the massive bunker oil pollution problem following the breakup of the ship.

However, little has been said of the part taken in the operation by the Province of Nova Scotia, through a Cabinet Committee and the Emergency Measures Organization of Nova Scotia.

The Government of Nova Scotia was quick to appreciate that it had a role to play, and that when the pollution touched the shoreline and beaches, they would become more deeply involved.

Therefore, to protect provincial interests and provide assistance to the federal team, the provincial cabinet appointed a committee consisting of the Hon. G. C. Ritcey, Minister of Trade and Industry, Chairman; Hon. P. Gaum, Minister of Mines and Minister in charge of Nova Scotia Emergency Measures Organization; Hon. J. Buchanan, Minister of Fisheries; Hon. G. A. Snow, Minister of Lands and Forests and Hon. D. R. MacLeod, Minister Without Portfolio and Minister Responsible for the Nova Scotia Water Resources Commission.

The on-side operational task was delegated to a team headed by Raefe Douthwaite, Assistant Director, EMO (N.S.) with members, Millian MacDonald, Department of Lands and Forests; Harry Tiller, N.S. Water Resources Commission; and Captain O. Egilsson, Department of Fisheries. The purpose of this team was to assist the task force team in any way that they might request. Later, the EMO (N. S.) Zone Controllers were called in to assist.

Dr. McTaggart-Cowan had many words of praise for the EMO team assigned to him and the following is a transcript of a taped interview:

QUESTION: Dr. McTaggart-Cowan, my purpose today is to record your assessment of the part played in "Operation Oil" by members of the Nova Scotia Emergency Measures Organization who were attached to your operation. I know that EMO (N. S.) Assistant Director, Raefe Douthwaite and Zone Controllers, Ed Ogilvie, Jim Pratt and Roy MacEachen have been a part of the operation for several weeks and an interpretation of their role from you as task force leader could be useful to EMO in developing future contingency plans. However, first of all, do you see the Emergency Measures Organization people from federal and provincial levels named as leaders or co-ordinators of task forces for an operation of this type?

DR. MCTAGGART-COWAN: EMO as sort of leader of the task force, this I cannot see, even in retrospect. But having said that, I think EMO has an absolutely vital role. We discovered this rather quickly after the task force came on site. We very soon found that in our briefing sessions each evening, when we were trying to solve the basic problems, anticipate tomorrow's and set up our priorities, we needed all kinds of equipment material, people with special skills which we wanted to get from Nova Scotia or if possible, in the Atlantic Provinces. The farther away we had to go to get things the greater the time delay and the greater the cost. As for the EMO people finding our needs for us, I think if we'd asked if there was an Empire State Building for sale in Nova Scotia all they would have said is: what color do you want? then gone and found out if it was available.

As an example: we needed a steam boiler to go onto the pumping barge, in fact we needed a couple of them. A number of years ago this would have been easy because every woods operation had a steam boiler. Now, they are all diesel. Yet EMO was able, within a matter of hours, to day, there was one in Prince Edward Island and that's all there is. The only other one belongs to the Navy.

When you come into an area and start looking for resources yourself, you don't even know to whom to start talking. As another example: we finally knew from the scientific research of Dr. B. Coupal* that peat moss was what we wanted, but we needed something to throw it. We knew about highway mulchers used for throwing seed and mulch on the sides of road cuts. We asked the EMO man on the team where could we put our hands on one of these mulchers. The next

* Department Chemical Engineering University of Sherbrooke.

"OILEVATOR" (slick-licker) shown working at Inhabitants Bay during the bunker oil clean-up. Note the oil being collected on the endless belt arrangement. It is then deposited in the barrels shown and transported to shore for disposal in carefully surveyed sites.

day he was able to come back and say that the Nova Scotia Government had one and New Brunswick had one, and these are all there are in the Maritimes. The nearest one was the Nova Scotia one, so we borrowed it.

Every single night there was a list of things we needed —we needed them fast. Sometimes we wanted to know before midnight where items could be found because it was critical to get them on the way overnight in order not to hold up operations the next day. The contacts that the EMO people had were the key to finding out where things were. And they seemed to be able to operate almost as well at midnight as at mid-day. This was an added advantage. I don't mind whether the task force commander was actually a resident of the province or whether like me he came from 1,000 miles away, he still wouldn't have that kind of ingrained knowledge of the very warp and woof of the society and its capabilities which is EMO's stock and trade in normal preparedness.

The final example in my mind is another success story. When we came to beach cleaning, we had to get the consent, the written consent, of every property owner whose property abutted the beaches, giving us reasonable right of access over their property to clean above high water mark if there was oil there. As you know there is no land registry here, and at the tax office they know who pays taxes; but they are not very sure on what! How the devil were we to find out who owned what and how to get a signature? We turned to the EMO Organization to get out and knock on doors and find out who owns the land. We drew up a simple little letter, which I had agreed with Trade & Industry Minister Ritcey as adequate. Then the team of EMO people just got out and did a marvelous job. They divided the area between three of them and literally went around and walked every inch of the beach, knocked on doors and got the signatures, and left a trail of good will.

Looking back on it, this is really a counterpart of what you're doing in normal times; because you're working with volunteers, you've got to persuade people that it's worth cooperating and one of the criteria I am sure you use in choosing the people are their abilities to be sympathetic, firm and deliver the goods. This is exactly what they are doing and they did the job remarkably quickly.

At the same time they worked with the provincial government departments in identifying dump sites to dump the soiled material off the beaches. I don't think there is another group that we could have put together that could have done anything like as good a job and certainly in nothing like the time because they were out in an environment they understood.

QUESTION: I have heard you make the statement, and I feel you proved it to be true here, that an operation like this is 90 per cent community relations. Would you care to elaborate?

Task Force Team appointed by Honourable Don Jamieson, Minister of Transport is shown above, left to right: Dr. Harry Sheffer, Vice-Chairman, Defence Research Board, Dr. P. D. McTaggart-Cowan, MBE, Science Council of Canada and Capt. Mike Martin, Maritime Command, Canadian Armed Forces.

DR. MCTAGGART-COWAN: I've said this whole operation, the entire thing, is 50 per cent community and 50 per cent science engineering and hard work. I think the EMO operation has been about that too. I'd say the 50 per cent that was not to do with people, was knowing where the equipment of all kinds, colors and descriptions was; or if they didn't know where it was, who would likely know, and how to contact them. The other (50%) was to do things with people, getting the releases from the property owners and their cooperation

(and this is a 100 per cent people problem!). They did both in an excellent manner.

QUESTION: Do you perhaps see a role for Canada EMO (that is, on a national level), as a co-ordinating body.
DR. MCTAGGART-COWAN: I would put it another way. They are an essential member of the team dealing with any kind of major pollution disaster. When you say co-ordination, I know what you mean, and I would agree with you; but you talk to somebody else and they would think of the kind of co-ordination that the task force is providing, and then my answer would be no. I think to communicate to people in a way they would understand, is to say that the skills that are inherent in the peacetime EMO Organization are indispensible to any task force group set up to handle a disater of this sort. We found a variety of roles. If we had to do it over again, we'd probably find some other things—skills they had that we didn't identify until the need to task them had gone by.

QUESTION: Dr. McTaggard-Cowan, I am most grateful for your time this afternoon and I'd be very pleased if you would sum up the EMO effort in "Operation Oil" for me.
DR. MCTAGGART-COWAN: Yes, in summary I'd say that the EMO organization has made a very valuable contribution to "Operation Oil". Many of the things that they contributed are too numerous to list. I think that no other organization could have done it half as well, or on a real time basis, which was the name of the game. The kind of preparedness that is built into the EMO organization in peacetime I think can be brought immediately to the assistance of any task force, provincial, federal or municipal that has to cope with an instant disaster for which they cannot be fully prepared at all times, because there is a cost factor in here and the EMO Organization has this flexibility. They can come in as a member of the team and provide this added component, which, in my judgement, is indispensible to success.▲

A DECADE (*Continued from page 2*)

for which no emergency measures would be required. Emergencies develop because of the impact of a situation upon the individual. We as managers have really only one end purpose, and that is the welfare of the individual in disaster.

In the 1970's we must examine the environment, forecast the potential emergencies, and develop clear-cut, simple and effective plans to warn, inform and protect the individual. We must have workable arrangements to ensure that, when disaster strikes, he is fed, clothed, housed and effectively employed. We must have preparations made to succor him in the loneliness of dire emergency and to give him a blueprint for organizing his immediate and, indeed, longer range response. It is our responsibility to develop, or to coordinate the development of, preparations to guide and to direct him to an effective relationship with his changed environment.

If we have emerged from the Seventies having accomplished this intricate, demanding and very important purpose we will have, indeed, met the challenge that this decade lays before us.▲

SEMINAR (*Continued from page 19*)

Peking's suspicions of Soviet intentions do not derive from ideological differences or the disputed border alone. The major diplomatic and economic offensive of Moscow in South and Southeast Asia during the past few years has added a new dimension to China's distrust. The increased presence of Soviet officials throughout the area, new airline agreements and training ties, sometimes unfavorable to the Soviet Union, with several of the regions countries, and military aid to India has deepened China's fears of Soviet intentions. The focal point of Peking's concern appears to be improved Soviet-Japanese relations. According to the Chinese press, the new "Soviet tsars" have "moved heaven and earth to foster and gang up with Japanese militarism" The existence of links between Moscow and Taipei, and Moscow's apparent interest in some kind of collective security agreement in the area have done nothing to reassure China. The dramatic domination of the India Ocean by the Soviet fleet, Moscow's quest for naval bases in India, and her increased aid to and influence on New Delhi all add up to a rather forboding picture of Soviet intent in Peking's eyes.

Even if China's perception of American, Japanese and Soviet hostility toward her is exaggerated she is nevertheless having to formulate her foreign policy decisions in an international context in which the two super-powers of the world and perhaps potentially a third are pursuing policies explicitly aimed at the containment of China. The pressures on China that this situation creates provide countless areas in which by miscalculation or misdemeanour on either side a military confrontation with China is possible. In conclusion a foreign policy based on the fear and underlying assumption that China is inherently an expansionist power is the greatest obstacle to improved Sino-Western relations and peace in East Asia. The record of Chinese foreign policy to the present lends no support to the arguments of those who believe in the present Soviet and American policies of containment. Chinese foreign policy has been consistently cautious and low key. It is likely to remain so for the forseeable future.▲

BLAST SHELTER QUESTION – FRANCE*

by
*Pierre Teissier***

Introduction

by
S.N. White
Director General, Long Range Planning
and Policy Development

The Threat to Canada which was published in an earlier edition of the Digest indicated that there are some 11 million Canadians who live in areas which may be subjected to the direct effects of nuclear weapons. Reflection on this fact leads one to consider the various methods of providing adequate protection for these people. One such method is, of course, the provision of blast shelters. Although a massive blast shelter program is generally considered to be an extremely expensive form of protection, nevertheless, we cannot afford to neglect to study the effects of blast on structures, nor the design of structures to resist it. There is no doubt about the fact, which our own limited involvement in Canada confirms, that applied technical study can materially reduce the cost of protection against direct weapon effects. So that what appears at one time to be financially unattainable, may well be brought with the bounds of possibility in the future.

France being one of the nuclear nations with its own testing program has the ability to carry on its research and development independent of any other country. Hence, the knowledge which it gains therefrom is a valuable addition to the sum total of knowledge related to blast protection. General Teissier has a long association with the development of defensive structures; first as a soldier and more recently within the French Civil Defence Organization. His authoritative article makes most interesting reading since it refers to the problems of a country with a population more than twice Canada's, and indicates the costs of a high-grade blast shelter program. There will be those who take from these figures added justification for calling blast shelter costs exorbitant, but they should compare them with the complete costs of modern defensive weapon systems.

In Canada, the limited program on blast research and development which is going forward is being centred on the development of relatively low-cost family blast shelters together with economic means of incorporating some level of blast protection into new buildings. It is also directed at methods of estimating the potential blast resistance of existing buildings.

Reprinted from "Survive"

You have said that you would like to have from me, a Frenchman, a brief "exposé" of what our studies on shelter from nuclear blast have been in France and the conclusions that can be drawn from them.

When the atomic bomb changed from a theoretical possibility to something which actually existed, and as soon as peace returned. French Army officers of the Corps of Engineers were oriented toward the new dangers which this involved, they were asked to define the limits of this new menace and the technical means whereby human life could be protected. They began to work with military medics, then because of possible food contamination by radioactive dust, with biological veterinarians. Finally military quarter-masters were in turn obliged to study the effects of nuclear weapons on the organization of food distribution.

Very quickly it became apparent that this overly-powerful method of warfare would be used, like aerial bombing, much more against the civilian population than against troops. Beginning with this realization the responsibility for protection no longer rested with military engineers, but with the French Office of Civil Defense. It is still there.

* The views expressed in this article are those of the author and do not necessarily reflect those of the French Government or other official French viewpoints.

**France's leading advocate of blast shelter—General Pierre Teissier—here outlines the story of independent French nuclear weapons and shelter research. Like the United States, France lags tragically in making provisions for the protection of its people in the event of nuclear attack. Technical knowledge of required shelter characteristics, however, is not lacking. According to the author good civil defense preparation by France would in the event of a 1,000-megaton attack give France 85% survival, while under present conditions only 5% of the population would survive.

The French Army, of course, has not kept the results of its nuclear research to itself, and it has given the benefit of its knowledge to French Civil Defense. This explains the presence of several general officers in civil defense technical posts: an engineer general, an aviation general, a medical general, and a quartermaster general.

As long as it was in the military domain nuclear research was kept secret. We at that time photographed, for each millionth of a second, the momentary but enormous forces which, like nuclear blasts, appeared suddenly, were transmitted instantaneously to the inner walls of shelters, some times rupturing them, and then disappearing as quickly as they had come. We produced flashes of heat of the same strength, the same duration and the same spectrum as those which occured in the case of a nuclear explosion to the point where steel melts, to that where heated concrete is reduced to dust, to the point where the clothes of men and women burst into flame and to that where a newspaper becomes a torch. We took radioactive rays similar to those of atomic weapons, and we ricocheted them in the entryways of shelters as well as shooting them through earth and concrete to see in what proportion each is deflected into the shelter, each inch of earth or of concrete reduced the radiation intensity and changed its spectrum; we made the same neutrons as those of bombs react on materials employed in construction in order to know which ones became radioactive, to what degree and for how long. Our tests of passages, of doors and of anti-blast measures were countless.

In this way we ourselves became familiar with nuclear weapons effects and their limitations well ahead of the actual construction in France of one of these bombs. And, of course, we tested every possible way in existence or anticipated by us, costly or not, to protect human life.

But, for engineers of long experience, it was unthinkable to consider conclusions of much value as long as they had not been verified by actual nuclear explosions.

And French Civil Defense waited for us to give it the necessary proof.

In 1957 the United States opened up for us the first opportunity of making a verification of shelters which we had calculated as good for an overpressure of 140 psi. The test was conducted in Nevada, but we were not authorized to be present or even to enter the test area. Our shelters, however, held up under the impact, and the mice which were inside them survived.

Finally in 1960 the first French atomic bomb was detonated, and we were able ourselves to test our shelters under conditions which, although remaining secret for outsiders, were completely known to us.

We tested, in addition to diverse types of covered trenches against fallout, blast shelters designed for civilian populations rated at 140 psi, 220 psi, and 560 psi. This last shelter was studied for rather exceptional cases such as rescue posts maintained in the heart of a threatened city, and it was fitted with a special door with an opening of 5.25 feet by 6.60 feet to permit the passage of ambulances.[1] (This door, which was built to our specifications, cost us less than 10,000 dollars f.o.b. at the Paris factory.) We also took advantage of this shelter to ask the Louvre Museum in Paris to loan us fragments of paintings which were without value but executed at the same time and with the same paints as museum masterpieces. We wanted to see if neutrons, very numerous at this short distance from the bomb, would be sufficiently attenuated by the shelter walls so as not to damage the masterpieces that might be placed therein.

Finally we had the complete experimental proof that our shelters were adequate: everything had withstood the shock, including items not specifically designed to resist it and subjected to the test merely on the assumption that they could withstand the shock. These items, for example, included door hinges, small electrical assemblies, fans, containers of potable water, lamps, paintings, mice, and even the tape recorder I had placed there to register the terrific noise that a shelter experience after a close-by explosion.

For us the first round is finished. We know for certain how to protect human lives as close as we want to the edges of the crater opened by the explosion. In the case of a 1-megaton ground burst the overpressure is only 440 psi at a distance from the point of the explosion equal to one and one half times the diameter of the crater.

And what is important for you—Americans in the United States—is to realize that these results were obtained exclusively by French research undertaken in secret at a distance of more than 6,000 miles from America without any communication with those who were undertaking the same research there, also in secret and by different methods, and that this French research led to the same conclusion, to the same result: we know with certainty how to protect the civilian population against the effects of nuclear weapons.

Less than 10 years before this, at a time when the H-bomb did not yet exist, practical thinkers asserted that all our research was useless and that it would never be possible to protect people from an explosion the size of the Hiroshima bomb.

The question of the cost of protection was then considered, and we were quite embarrassed by the variations between the prices given for the same degrees of protection by the United States and by us in France. But then we discovered that this had very little to do with different economic conditions and pertained essentially to the degree of austerity that each country found to be acceptable in a shelter. Examination of German shelter specifications and bills of materials confirmed this further. This is why I use here—in

1. Note: In order to withstand the heavy ground motion in the area of this overpressure a shelter would have to be mounted on springs (See "NORAD: Nuclear Fortress" in the March-April 1969 issue of Survive).—Ed.

Table No. 1—not the cost of a shelter space, but the comparison between the price of a space in a new, completely equipped shelter assigned a given blast protection with the cost of a shelter space in a new, completely equipped shelter against fallout only (or, if we want, assigned a blast protection of about 4 psi). Expenses for "comfort" being less in France the prices here climb at a comparably faster rate, but not in either county does the price of a space in a new, fully equipped blast shelter protecting against 220 psi exceed three times the price of a new, fully equipped shelter protecting against fallout only.

TABLE 1

New shelter with a blast protection of:	Fallout only (4 psi)	14 psi	28 psi	80 psi	100 psi	140 psi	220 psi
U.S.A.	1	1.17	1.35	1.80	2.0	2.1	2.7
FRANCE	1	1.45	1.70	2.20	2.4	2.7	3.0

NOTE: General Teissier uses ratios instead of actual cost figures due to the wide variation of shelter cost estimates. These ratios pertain to shelters which are completely equipped. American authorities understandably do not arrive at exactly the same ratios.—Ed.

There appears to be no question about this.

And now to another point:

In any nation there are the big cities, the small towns, the hamlets and "the green country" as we say in France. A ten or twelve-megaton missile costs fifty million dollars in the United States. The enemy, therefore, doesn't have so many missiles that he can amuse himself by firing a rocket worth fifty million dollars into the wheat fields of Montana or into a small town of 800 inhabitants when the same rocket zeroed in on Washington would replace the capital of the United States with a big hole surrounded by charred and radioactive soil.

It is therefore normal that in the Montana wheat country they build fallout shelters only and that in the big cities they build highly resistant blast shelters.

The new stage of research, then consists of each country estimating how the enemy plans to use his bombs in order to cause the most damage possible, what targets he will select as a consequence, how to space around these targets shelters of varied blast resistance in order that, in the final analysis, for a given expenditure the highest possible percentage of survivors results.

We have made this study for France—and it has also been made for the United States.

In the United States, as in France, the study ended with the conclusion that only 50% of the nation's population could be adequately protected with fallout shelter, but that the other 50% had no chance of surviving if blast shelters were not made available.

In France, a country with fifty million inhabitants (one fourth the population of the United States), we estimated a total expenditure of ten billion dollars for shelter, and that this would allow us in the event of a 1000-megaton attack delivered within a period of forty-eight hours to wind up with 85% survivors at the end of ninety days (death by radiation is slow, as is the cure) in lieu of a maximum of 40% survivors in the case where *all* the population was provided with shelter protecting against fallout only, and less than 5% survivors under present conditions.

I do not think that the proportions could be very different within the United States under a very big and well-conducted nuclear attack.

We have ascertained also that this expenditure should be spread over a period of ten years, not simply to make it acceptable budget-wise but because it is necessary that construction firms equip themselves, that their research personel get used to thinking in the specialized terms of shelter construction and to calculating required protection features. There are not enough workers, or enough engineers, or enough machinery in the construction industry to exceed this tempo without upsetting the country's economy. Furthermore the location of blast shelter in big cities requires special studies, purchases of shelters sites, and prior rebuilding which, depending upon the situations encountered, could require several years.

The United States, like France, is a free country; it is the obligation of each citizen, after becoming informed, to appreciate the risks he agrees to accept and the insurance that he is prepared to pay to protect himself.

One should not be surprised if this appreciation varies according to the international political situation of the moment, according to the temperament and the convictions of each person.

The Germans have often said, however, "We lost the last war for having begun the massive construction of shelters two years late."▲

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